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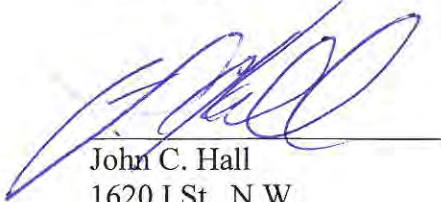
U.S. Environmental Protection Agency
Clerk of the Board
Environmental Appeals Board 1103M
1200 Pennsylvania Avenue, N.W.
East Building
Washington, D.C. 20460-0001

Re: Town of Newmarket Wastewater Treatment Plant
Permit Number: NH0100196
Appeal Number: NPDES 12-05

Dear Ms. Durr,

Please find attached the Petitioners' Response to Amicus Briefs of New Hampshire Department of Environmental Services and Conservation Law Foundation, Town of Newington, and New Hampshire Audubon, and accompanying Certificate of Service.

Sincerely,



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**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

_____)
In re:)

Town of Newmarket)

NPDES Permit No. NH0100196)
_____)

NPDES APPEAL No. 12-05

**PETITIONERS' RESPONSE TO AMICUS BRIEFS OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES AND CONSERVATION LAW
FOUNDATION, TOWN OF NEWINGTON, AND NEW HAMPSHIRE AUDUBON**

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Petitioners respectfully submit this Response to Amicus Briefs of New Hampshire Department of Environmental Services (the “Department” or “DES”) and Conservation Law Foundation, Town of Newington, and New Hampshire Audubon (collectively “CLF”).

Response to DES Amicus Brief

I. The Board Must Disregard Unsupported Statements of Counsel

The entire DES Amicus Brief (“DES Am. Br.”) (as well as Sections II, and III. D. of CLF’s brief (“CLF Am. Br.”)) contains nothing more than unsupported statements of counsel. DES attempts to characterize its filing as “an attempt by NHDES to correct some of the most important mischaracterizations.” DES Am. Br. at 2. In actuality, these unsupported statements constitute blatant mischaracterizations of the record now before the Board. In particular, the Department fails to cite to any documents supporting its positions and, through counsel, simply makes factual averments in hopes that the Board will accept the statements as true. This is clearly improper, indirect testimony by DES counsel. *See, e.g., Jin Chun Lin v. Holder*, 430 Fed. Appx. 54, 56 (2d Cir. 2011) (citing *Immigration and Naturalization Serv. v. Pinpathya*, 464 U.S. 183, 188 n.6 (1984)) (finding “counsel’s unsupported assertions in a brief do not constitute evidence”); *Puc-Ruiz v. Holder*, 629 F.3d 711, 779 (8th Cir. 2010) (citing *Pinpathya*, 464 U.S. at 188 n.6) (giving no weight to counsel’s unsupported assertions in counsel’s brief); *Camaj v. Holder*, 625 F.3d 998, 992 (6th Cir. 2010) (“Arguments in parties’ briefs are not evidence.”) (citing *Duha v. Agrium, Inc.* 448 F.3d 867, 879 (6th Cir. 2006)). Thus, as a matter of law, these unsupported (and as shown herein) demonstrably false averments may not be considered, as such statements do not provide any relevant factual information for the Board’s review.

Moreover, the following provides specific information showing that the DES filing fails to meet the “duty of candor” and in many respects, constitutes an attempt at “fraud on the court”¹ in that it was “intentionally false, willfully blind to the truth, or is in reckless disregard for the truth.” *Demjanjuk*, 10 F.3d at 348. The sworn statements of the DES lead scientist (Philip Trowbridge) and program manager (Paul Currier) responsible for the development of the 2009 Numeric Criteria, provided herein, *infra*, Section III, confirm that numerous statements in DES’ amicus brief are fabrications.²

II. DES Never Challenges Any Fact Highlighted by the Petitioners from the 2013 SOE Report Showing Clear Error and Drs. Jones and Langan Confirm the Accuracy of the 2013 SOE Report

It is noteworthy that DES, a major participant in the development of the 2013 PREP State of the Estuaries (“SOE”) report (S. Exh. 17), does not challenge Petitioners’ presentation of the information contained in the report as in any way inaccurate. The 2013 SOE report independently confirms that the 2009 Numeric Criteria and this proposed permit action are based on clearly erroneous assumptions. Br. at 25-26. A recent letter received from two key University of New Hampshire researchers and PREP TAC members, Drs. Jones and Langan, in response to an inquiry from the Mayors of Dover, Rochester and Portsmouth further confirmed that there is no research or study conducted for this estuary that has ever found nitrogen to be the cause of reduced transparency or DO in this system. S. Exh. 11. The studies have found, however, that these conditions are not driven by nutrient-induced changes.³ Thus, the “scientific

¹ The elements of fraud on the court are conduct: “(1) on the part of an officer of the court, (2) that is directed to the “judicial machinery” itself; (3) that is intentionally false, willfully blind to the truth, or is in reckless disregard for the truth; (4) that is positive averment or is concealment when one is under a duty to disclose; and (5) that deceives the court.” *Demjanjuk v. Petrovsky*, 10 F.3d 338, 348 (6th Cir. 1993).

² Counsel for DES, who submitted the filing, defended the DES deposition and was therefore, fully aware of the statements made under oath by Philip Trowbridge and Paul Currier but chose not to reveal them in his filing.

³ The following summarizes the response of Drs. Jones and Langan (S. Exh. 11) to four of the eight questions posed to them by the Mayors from Great Bay estuary communities (S. Exh. 10): **Transparency-related questions**

basis” of EPA’s action is not based on the demonstrated needs of this system, or any demonstrated impacts (or even likely impacts) of nitrogen and therefore is “clear error.”

III. Specific Responses to DES Amicus Brief Claims

The following analysis corresponds to the section headings in DES’ amicus brief and demonstrates statements contained within each section are fabrications and are otherwise materially misleading.

a. Background (DES Am. Br. at 2)

The Petitioners stated that EPA is attempting to impose, without rulemaking, new numeric nutrient criteria for nitrogen and transparency, contained in the draft 2009 Numeric Criteria document, which have no demonstrable relationship to the actual environmental conditions or needs anywhere in the Great Bay estuary. *See* Petition for Review (“Pet.”) at 3-26. DES admits it used the 2009 Numeric Criteria document as “numeric thresholds” to designate waters as impaired. DES Am. Br. at 2. However, DES claims this was simply the implementation of its existing narrative standard: “[t]hese thresholds guide DES’s decision as to

Question #1: Has data collected for the estuary confirmed that changing TN levels have caused an increase in phytoplankton growth, significantly lowering water column transparency in Great Bay, Little Bay or the Piscataqua River? (S. Exh. 10 at 4). **Answer:** *No...There are no places where we are aware of documented increasing phytoplankton populations, and in many areas chlorophyll a remains present at relatively low levels.* (S. Exh. 11 at 1-2).

Question #3: Do [transparency] studies indicate that reducing TN levels is likely to result in a significant improvement in water column transparency for either Great Bay or the tidal rivers? (S. Exh. 10 at 4). **Answer:** *No...TN reductions would not appear to provide much in the way of improving transparency through this mechanism, although no study has been conducted to address this.* (S. Exh. 11 at 2).

Question #4: Have studies determined that the significant eelgrass declines which occurred systemwide in 2006 were not due to the impacts of excessive rainfall occurring that year but were caused by TN related impacts due to excessive nuisance algal growth? (S. Exh. 10 at 4). **Answer:** *No...We have not seen any analysis, or even a comprehensive consideration of all of these factors that would enable discerning the relative influence of each on what happened to eelgrass in 2006.* (S. Exh. 11 at 2).

DO Impacts: Question #6: Have studies in either the Squamscott or Lamprey Rivers confirmed that algal growth in those rivers is the major cause of the periodic low DO observed in those rivers? (S. Exh. 10 at 4). **Answer:** *No...A 2005 study by Jones in the Squamscott River was designed to capture this latter condition by conducting river length surveys early in the morning under tidal conditions that were most frequently associated with lower DO levels. That study and a similar one (Jones 2007) did not reveal any extensive low (<5 mg/L) levels, and low DO levels that did occur were not correlated with chlorophyll a levels.* (S. Exh. 11 at 2-3).

whether the narrative criteria were or were not being attained. . .” DES Am. Br. at 2. This is a fabrication, as DES admitted, under oath, that these criteria do not provide a basis to prove that a narrative criteria violation has occurred:

Q. Mr. Currier, you indicated that this analysis of light attenuation versus total nitrogen at trend stations, that this analysis doesn’t prove causation, correct? **A.** Yes. **Q.** Okay. So is this analysis sufficient in your mind to determine that nitrogen is causing a violation of the narrative standard in that it doesn’t demonstrate causation? **A.** It’s not sufficient, no. (AR D.4.i.1 at 80 ln 14-23).

In addition, Philip Trowbridge also confirmed that the 2009 Numeric Criteria did not implement the state narrative standard:

Q. ... Does this numeric nutrient criteria document from June 2009, is it DES’s position that this document constitutes a demonstration that the narrative criteria for nutrients have been violated within the Great Bay estuary? **A.** Does that document? **Q.** Uhm-hmm. **A.** Demonstrate a violation? **Q.** Yeah; of the narrative standard? **A.** No. (AR D.4.i.4 at 332 ln 22 – 333 ln 8).

Thus, both Messrs. Currier and Trowbridge, under oath, admit that the basis for designating the estuary as impaired for nitrogen was not implementation of the narrative criteria, but rather the application of an unadopted numeric criteria. That state action, as well as EPA’s reliance on that action in issuing the draft Newmarket permit, plainly violated applicable Federal law. *Infra*, at 6-9; Br. at 30-31.

1. Underlying Studies/Uncertainties and “Proof” (DES Am. Br. at 2 - 4)

Petitioners stated that underlying studies proving that water column transparency was not impaired due to nitrogen were not included in the 2009 Numeric Criteria document or in the subsequent peer review. Pet. at 13. The amicus brief now claims, with no supporting reference, that DES “decided not to use” these studies because “the data sets and methodology used in those graphs were both inconclusive and inadequate to reflect the complexity of the Estuary.” DES Am. Br. at 2-3. However, Philip Trowbridge, author of the 2009 Numeric Criteria document, admitted in his deposition testimony (1) that DES simply excluded critical data and

analyses from the 2009 Numeric Criteria document, and (2) never claimed that any of the prior analyses were in error:

Q. ... 2009 criteria document that you developed, that's a – you said you used a weight of evidence analysis to come up with the criteria in that report; right? A. Yes. Q. Did you include in that report the evidence that indicated that transparency was not the cause of eelgrass loss in the system that you had developed in any of your earlier analyses? A. What are you referring to for an earlier analysis? Q. That transparency, or analysis of transparency had not changed over time; was that included anywhere in that report? A. No. Q. What about all the statements that Great Bay is not a transparency-controlled system, from EPA and Dr. Short, and those are the ones you and I walked through in your first round of the deposition. Did you include the statements that Great Bay was not transparency-controlled? A. I'm not sure; I don't believe so. Q. Okay. What about the – did you include the statements that the cause of eelgrass losses and changes in the system were unknown, statements that were contained in the various 303d listing documents? A. Uhm, I have to look through. I'm not sure. I'm not seeing it here. Q. Did you include any of Morrison's conclusions that the major factors controlling transparency in the system were, in fact, turbidity and color-dissolved organic matter, and not chlorophyll? A. I believe we included equations from the Morrison study. Q. Did you highlight the Morrison study concluded that the transparency level of Great Bay was acceptable, and that you needed to look at something else as the cause of eelgrass demise? A. I'm not sure if we have that statement in here. Q. It's pretty important statement, isn't it? It made your report. Did you – well, did you include any discussion about how the primary graphs that you were using to develop the transparency and nitrogen relationships were merely correlations and did not demonstrate causation? A. I don't believe so. (AR D.4.i.4 at 436 ln 8 - 438 ln 9).

Thus, the amicus brief statements are complete and utter fabrications. Drs. Jones and Langan also confirmed conclusions from the previous studies and analyses for the estuary are still valid. *Supra* at 4, n.3. Moreover, the correspondence between EPA and DES acknowledged that the restrictive TN criteria, unlike the earlier assessment, was based on a confounded analysis that *did not* represent “cause and effect” in the system:

The comment that seems the hardest to refute is that nitrogen is correlated with light attenuation. Nitrogen was not proven to be the causative agent for light attenuation. Moreover, nitrogen is a component of all the factors causing attenuation (phytoplankton, CDOM, particulate organic matter) so a correlation would be expected.

Pet. Exh. 6A- an email between Jim Latimer (EPA) and Philip Trowbridge on November 19, 2008. In addition, DES admitted that it knew that system transparency had never changed when it proposed the stringent transparency-based TN standards:

Q. ... So you plotted the water quality -- water clarity data over time and then you showed some of the same regressions. And you showed the preliminary results, the Ru Morrison study, that chlorophyll-a is only eight percent of the transparency affecting the system. Now let's go to the conclusions. Can you read the first conclusion? **A.** Eelgrass biomass declining in Great Bay but no apparent decline in water clarity. *** **Q.** You've got water on the Piscataqua River which showed it didn't change over time. The only available data -- do you have any other available data other than these data showing whether water quality changed over this 15-year period in the Piscataqua River and Great Bay where most of your eelgrass resources were? **A.** No. *** **Q.** So the only available data you have shows water clarity didn't change in the Piscataqua River and in Great Bay, right? **A.** Right. *** **Q.** So let me see if I understand this. You had specific data on Great Bay that said experts are telling you Great Bay's not a transparency issue, you have specific -- the only data set you have for the entire system saying transparency didn't even change over time, you have other information confirming that the nitrogen loads did not even cause a significant change in phytoplankton growth, and you ignored all of that information and simply claimed you had a weight of evidence of something else unrelated to this system that said you needed to have these stringent numbers in place? Is that what you're telling me? I mean, I just need to understand because you've got specific data and analysis and you did it repeatedly -- **A.** Hmm. **Q.** -- and it doesn't show up in that statement. **A.** Uh-huh. (AR D.4.i.3 at 227 ln 3-12; 230 ln 4-11 16-19; and 232 ln 22 - 233 ln 17).

Thus, the depositions confirmed that DES simply decided to ignore its own detailed assessments showing transparency was not the issue:

Q. Okay. Was this moored array report part of the studies that you considered in order to determine what was affecting transparency in the system and why? **A.** Yes. **Q.** Did you include this as a reference in that 2009 criteria document? **A.** Yes. **Q.** Okay. I'm going to read it. Are you an author on this study? **A.** Yes. **Q.** I'm going to read you a quote from the report, page 51. The results of the -- the results suggest that water clarity in Great Bay, Little Bay, and Lower Piscataqua River were sufficient for eelgrass growth. The virtual absence of eelgrass from all but Great Bay suggests that other processes apart from light restricted growth and are important for limiting eelgrass survival. Is that a false statement in this report? **A.** No. (*Id.* at 235 ln 18 -236 ln 17).

All of these critical analyses and findings were (1) absent from the 2009 Numeric Criteria document, and (2) withheld from the peer reviewers. These statements, the 2013 SOE Report, and underlying analyses confirm nitrogen did not cause the alleged eelgrass decline. *Accord*, S. Exh. 11. Nonetheless, DES also claims that the “peer reviewers” found the thresholds to be “reasonable and well-supported *by the data presented.*” DES Am. Br. at 3 (emphasis added). This purposefully misleading statement is not in accordance with counsels “duty of candor” as there is no indication of what “data” were “presented.” The peer review was based on the assumption that nitrogen had changed phytoplankton levels in Great Bay causing lower water column transparency, which both DES and EPA knew had not occurred in this system:

Q. So the only available data you have shows water clarity didn’t change in the Piscataqua River and in Great Bay, right? **A.** Right. *** **Q.** And where do you have data, in Great Bay, do you have data showing increased nitrogen levels caused phytoplankton blooms which reduced water clarity in Great Bay? *** **A.** We don’t have that information related to nitrogen causing phytoplankton blooms in the Great Bay Estuary. (AR D.4.i.3 at 230 ln 16-19, 123 ln 19 – 124 ln 1).

Thus, DES amicus brief claims (1) that “underlying studies” were not excluded from the 2009 Numeric Criteria document, and (2) that the 2009 Numeric Criteria document was not “based on erroneous technical assumption” (DES Am. Br. at 3) are demonstrably false. Its own scientist repeatedly admitted that actual data showed TN had not caused excessive algal growth or adverse changes in transparency in the system but that information was excluded from the 2009 Numeric Criteria document and from the peer review. Br at 87-91.

2. Impairments (DES Am. Br. at 3-4)

DES does not provide a single citation to support its claim that “much of the Great Bay Estuary is suffering from cultural eutrophication manifested by low dissolved oxygen in the Estuary’s tidal rivers, increased macroalgae, and declining eelgrass.” DES Am. Br. at 3-4. This is because such information does not exist, as independently confirmed by Drs. Jones and Langan

and 2013 SOE report. Philip Trowbridge confirmed the following, under oath, with respect to dissolved oxygen:

Q. Can you tell me what kind of natural – what type of natural condition could cause low DO in the system? **A.** I think there are many, but I'm not sure exactly. *** **Q.** ... How can we know at this point in time how much of that low DO is caused by algal growth versus other factors if we haven't analyzed the other factors that affect DO in the system? **A.** We don't have the information to do that analysis. (AR D.4.i.3 at 39 ln 10-14, 44 ln 21 – 45 ln 4).⁴

DES had the results of the Jones studies on the Squamscott River confirming no apparent nutrient/algal relationship with low DO in that system. S. Exh. 22 at 3. Likewise, Philip Trowbridge confirmed that there is no demonstrated macroalgae impairment in Great Bay:

Q. What about macroalgae impairments? Are they – are they documented in the Squamscott River, excessive macroalgae in the Squamscott, have you seen a report on that? **A.** No. **Q.** How about the Lamprey? **A.** No. *** **Q.** What about the Piscataqua, Upper or Lower, excessive macroalgae? **A.** I'm not sure. *** **Q.** ... Have any of the indicator reports ever addressed the extent of macroalgae growth in the system and whether or not it's causing an impairment? **A.** No. (*Id.* at 149 ln 21 – 150 ln 4; 150 ln 22 – 151 ln 1; 152 ln 13-16).

Mr. Trowbridge also confirmed that they do not know what caused the eelgrass changes in this system:

Q. . . . There was a major decrease in eelgrass populations in Great Bay; right? **A.** You mean in 2006, 2007, 2008? **Q.** Yeah. Big Drop-off? **A.** Yes. **Q.** I mean, actually, would you describe that as a relatively dramatic drop-off? **A.** It was a - - I just say it's a large change. It was a large decrease. **Q.** A large decrease that happened quickly; right? **A.** Uhm-hmm. **Q.** Okay. That decline in eelgrass was basically used as the basis for updating the impairment listings for 2009 and thereafter to call Great Bay eelgrass – impaired for eelgrass; correct? **A.** Yes. . . . *** **Q.** Here's the question: That major decline you don't know what caused that in 2006, '7 and '8; right? **A.** Uhm-hmm. Yes. We do not know. **Q.** ... do we know what caused the decline in Portsmouth Harbor? **A.** No. **Q.** Okay. Do we have data showing that there's major increases in algal growth in Great Bay or the Portsmouth Harbor area occurring during this time? I suppose the answer's no, or we might have tagged that as a indicator of what was happening; right? **A.** You're referring to phytoplankton? **Q.** Phytoplankton, yeah. **A.** For phytoplankton, no,

⁴ See also AR D.4.i.3 at 33 ln 2- 45 ln 4 - excerpt from Philip Trowbridge deposition going into further detail confirming the lack of data related to the periodically low dissolved oxygen in the Great Bay estuary.

there's no information. (AR D.4.i.4 at 369 ln 16 – 370 ln 8; 371 ln 16 – 372 ln 10).

Drs. Jones and Langan verify the accuracy of this statement. *Supra*, at 4 n.3. Thus, DES' amicus brief statements that this system suffers from "cultural eutrophication" and exhibits "classic symptoms" of excess nitrogen is not merely unsupported, it is demonstrably incorrect. The classic symptom, "excessive algal blooms," most certainly had not occurred. S. Exh. 11 at 1-2, S. Exh. 17 at 16. As demonstrated by Philip Trowbridge's testimony, these unsupported statements are simply fabrications that belie the factual record in an intentional attempt to bolster EPA's use of the 2009 Numeric Criteria development by DES.

3. Other Corrections

The following responses address the other "corrections" listed by DES on pages 5-7 of the Amicus Brief. Petitioners have only chosen a handful of the most relevant points to compare with the deposition testimony of Philip Trowbridge and Paul Currier, which directly and thoroughly contradicts what NHDES claims as factual "corrections" in its brief.

Correction #1. DES admits that microalgae (i.e., phytoplankton) have not increased but claims macroalgae have increased and, therefore, the transparency-based TN criteria are supported. DES Am. Br. at 1-2; Br. at 52-54. The position is facially absurd. The transparency criterion was based on water column effects.⁵ However, macroalgae grow on the bottom and do not affect water-column transparency. Consequently, DES' attempts to defend the 0.3 mg/l TN "transparency-based" standard are plainly unsupported. DES Am. Br. at 5.

Correction #3. DES states that "light attenuation is a good indicator of eelgrass survival" in the Great Bay Estuary and "nitrogen is most likely the dominant cause of ... eelgrass declines." DES Am. Br. at 5, 6. First, as noted previously, NHDES admitted it has no idea what

⁵ Even EPA agreed this action is not based on a macroalgae impacts as the principle concern. Resp. at 82

caused the major eelgrass declines in this system. *Supra*, at 9, 10; *accord*, S. Exh. 11 at 2. Second, Philip Trowbridge admitted that Great Bay is not a light-limited system (meaning light attenuation is essentially irrelevant for the vast majority of eelgrass habitat in the system):

Q. You've got emails from Dr. Short, Phil Colarusso, Jim Latimer, I don't know what he's an expert on, all saying the same thing, the system is not a light-limited system, Great Bay. What information did you have that demonstrated that expert advice was incorrect? **A.** None. (AR D.4.i.3 at 211 ln 18 – 212 ln 3).

Thus, these amicus brief statements are pure fiction.

Correction #4. DES' claims that "unless nitrogen concentrations in the tidal rivers are reduced, eelgrass cannot be restored to its historic range in these rivers". DES Am. Br. at 6. This statement is another fabrication, in direct conflict with Philip Trowbridge's testimony that (A) tidal rivers cannot now support eelgrass populations, and (B) TN control is ineffective in the tidal rivers to restore eelgrass:

Q. ... Regardless of why the eelgrass are not there [in the tidal rivers] at this point in time, the transparency data shows it [i.e., the tidal rivers] cannot possibly support eelgrass at this time; right? That's what this data indicates? **A.** Uhm, at a – yes. ... (AR D.4.i.4 at 429 ln 12-16).

Q. ... So controlling nitrogen to control chlorophyll in this system will not allow this water body to even come close to attaining the transparency level that is contained in the 2009 criteria; right? **A.** Based on this analysis, no. **Q.** All right. This data had been submitted to you and to EPA. Is there any basis that you know for claiming that the analysis presented in this graph is incorrect? *** **A.** No. (*Id.* at 423 ln 1-13).

Q. [Do the] [d]ata or analyses that show you control nitrogen, you're going to fix that transparency problem, transparency issue in the Lamprey River? **A.** The answer is I don't believe so. It's the same issue as the Squamscott. (*Id.* at 432 ln 20 – 433 ln 1).

Paul Currier, Philip Trowbridge's supervisor, also confirmed there is no analysis showing TN control is significant to eelgrass restoration in the tidal rivers:

Q. Back to my last question, though. Have you ever seen an analysis that shows regulating nitrogen for the tidal rivers, and I'll say upper Piscataqua, Squamscott

and Lamprey will, in fact, result in a significant improvement in the transparency such that eelgrass can be restored? Has anybody ever showed you a site-specific analysis of the data for those sections that show that? **A.** No. **Q.** Okay. I hadn't seen it either. That's why I thought you might have seen it. **A.** I'm fairly sure it doesn't exist. (AR D.4.i.1 at 137 ln 12 – 138 ln 1).

Correction #7. DES claims it only used the 2009 Numeric Criteria in the preparation of § 303(d) list of impaired waters. DES Am. Br. at 6. The statement is also patently false. Under deposition, Philip Trowbridge and Paul Currier both admitted that the 2009 Numeric Criteria was used by DES to develop the 2010 Wasteload Allocation Report and that report was submitted to EPA to serve as the basis for setting more restrictive effluent limitations for the permits:

Q. So the, again, the purpose of the wasteload allocation report was to determine how much reductions in nitrogen would be needed to meet the 2009 criteria? **A.** Yes. (AR D.4.i.4 at 285 ln 11-14).

Q. And I'd like you to go back to the first page, where it's your e-mail where you're saying, "Hi Carl and Brian. Attached is a draft of the wasteload allocation." It's the very first thing. "I hope it will be useful in our consideration of the Exeter and subsequent permits." Was it—one of the purposes of developing this wasteload allocation was that it could be considered as a basis for setting the, whatever more restrictive permit limitations might be necessary in the next round of permitting? **A.** Yes. (AR D.4.i.1 at 139 ln 10-21).

Thus, DES' claim that the only action it took using the unadopted 2009 Numeric Criteria was to use those values in the impairment listing process is a complete fabrication.

Correction #8. While DES correctly states the *conclusion* of the October 19, 2012 letter from DES Commissioner Thomas Burack (AR H.43, DES Am. Br. at 7), DES fails to acknowledge that Commissioner Burack's letter admitted the scientific errors highlighted by the Petitioners' filing were accurate. The admitted scientific errors included: (1) admission that algal levels in the system [the Great Bay Estuary] did not change materially from 1980 to present, despite an increase in TN levels between 1980 and 2004 (AR H.43 at 1-2); (2) admission that transparency in the major tidal rivers (Squamscott, Lamprey, Upper Piscataqua) is poor, but the

available data (not previously analyzed by DES) shows that the effect of algal growth on transparency is negligible and that naturally occurring CDOM and turbidity are the key factors controlling transparency in the system (*id.* at 5); and (3) admission that Great Bay itself is generally not a transparency limited system because eelgrass receive sufficient light during the tidal cycle (*id.* at 7). It is these scientific errors, not the Commissioner's ultimate refusal to correct the 2009 Numeric Criteria, despite these errors, that controls the Board's review in this matter.

Moreover, DES' claim that the letter disagreed that "reducing nitrogen would have no material effect on transparency in tidal rivers" is materially incomplete and misleading. DES Am. Br. at 7. To the contrary, the letter, in fact states: "During the deposition, DES staff agreed that the graphs supported these conclusions [i.e. TN control would not materially alter transparency in the tidal rivers]." AR H.43 at 5. As noted earlier, both Paul Currier and Philip Trowbridge confirmed there is no analysis showing that TN control will materially improve the naturally poor transparency in the tidal rivers. *Supra*, at 11-12. This new attempt by counsel to discredit those admissions is baseless and must be rejected.

Conclusion

The DES amicus brief is materially misleading, unsupported by any referenced materials and contains statements of counsel that are directly at odds with documented DES sworn testimony from depositions over which DES counsel presided. The DES amicus brief provides no probative value to the Board's review.

Response to Amicus Brief of the Conservation Law Foundation, et al.

I. CLF Misstates The Controlling Factors for Review in This Case

NPDES permits are based on facts and scientific findings, not wishful thinking. It is most telling that CLF never disputes four key facts discussed in the Petitioners' brief:

1. The 2008 impaired waters list was modified based on an alleged CLF litigation threat, not a demonstration that nitrogen had actually caused the recent eelgrass decline (i.e., this was an illegal/unsupported impaired waters modification that was never reported to the public or included in the administrative record) (Br. at 8, 21, 44 n. 47; S. Exh. 2 attached email from G. Comstock to P. Trowbridge (Nov. 26, 2008));
2. Algal levels in the system have not changed significantly in the past 30 years; therefore, it is *impossible* for nutrients to have caused the eelgrass declines via a change in water column transparency (Br. at 26, 67);⁶
3. Studies confirmed that low DO in the tidal rivers were not caused by excessive algal growth (Br. at 11, 92 n. 80);⁷ and,
4. The peer reviewers were not presented with the various studies and data confirming nitrogen and algal growth had not caused either low DO or transparency changes in this system (Br. at 37-38).⁸

⁶ CLF only notes that the 2013 SOE report indicates that "it can be difficult to detect trends based on monthly monitoring programs." CLF Am. Br. at 16. That only further underscores that there is no evidence that an algal-induced transparency problem exists in this estuary.

⁷ While CLF supports EPA's claim that low DO in the tidal rivers is caused by nutrients and algal growth, EPA includes in the record, but never references the only studies that preformed a detailed assessment of this issue. AR K. 7-8, S. Exh. 22. In particular, the 2007 Jones study, funded by EPA, concluded: "The nutrient and chlorophyll *a* levels at the different sampling sites in the Squamscott River did not appear to have any discernible relationship with DO levels." AR K.7 at 3.

⁸ CLF simply claims the Coalition communities had no right "to directly participate in the peer review." CLF Am. Br. at 19. They completely ignore the more basic claim that the peer review was purposefully biased by failing to provide essential studies and analyses directly addressing whether the nitrogen-related impairments assumed by the 2009 Criteria ever occurred in this system. (e.g., AR. K.7, S. Exh. 22, 2006-2007 TAC evaluations confirming TN has not caused transparency and algal growth changes over time and poor transparency was a natural condition).

In light of these unrefuted (actually irrefutable, given the record) facts, CLF employs a barrage of unsupported accusations including a “campaign of delay” (CLF Am. Br. at 4), “jeopardize health of the estuary” (*id.* at 5), that Petitioners are only offering “competing scientific and technical opinions” (*id.* at 6). First, none of CLF’s statements are supported by relevant or competent information from the estuary. Second, this case is not about competing scientific theories, it is about EPA and DES expressly ignoring the documented facts regarding whether or not nitrogen loadings have triggered certain events in this estuary. As discussed in *Upper Blackstone*, EPA receives minimal deference on the existence of objectively ascertainable facts. *Upper Blackstone Water Pollution Abatement Dist. v. Env’tl. Prot. Agency*, 690 F.3d 9 (1st Cir. 2012), CLF Am. Br. at 6, n.3.⁹ In this case, “objectively ascertainable facts” would include: did the data confirm that algal levels increased significantly in Great Bay and Lower tidal rivers over time, did the data confirm that transparency decreased significantly in Great Bay and Lower Tidal river over time, did any study confirm that low DO in the tidal rivers is caused by elevated algal growth, was the EPA “peer review” presented with all of the relevant scientific information and studies for the estuary). The “factual” answer to each of these questions is “no”. Thus, this is not a case where the Board must be “most deferential” to EPA’s various claims, as CLF asserts. EPA’s actions must be “rational and supportable” in light of the facts and available

⁹ CLF cites to *Balt. Gas & Elec. Co.* for the proposition that courts should be most deferential to an agency decisions at the frontiers of science. *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87 (1983), CLF Am. Br. at 6, n.3. However, the Court in *Balt. Gas & Elec.*, noted that the agency cannot ignore the relevant information and the Court must “determine whether the [agency] has *considered the relevant factors* and articulated a rational connection between the facts found and the choice made.” 462 U.S. at 105 (citing *Bowman Transp., Inc. v. Arkansas-Best Freight System, Inc.* 419 U.S. 281, 285-96 (1974) (emphasis added); *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971); see also *Limerick Ecology Action, Inc. v. United States Nuclear Regulatory Com.*, 869 F.2d 719, 740 (3rd Cir. 1989) (citing *Balt. Gas & Elec.* in overturning an agency determination and finding that an agency’s failure to consider the relevant information is even more troubling in situation requiring special expertise). In addition, the court in *Am. Farm Bureau Fed’n v. Env’tl. Prot. Agency* indicated that, although EPA gets deference pertaining to its technical expertise, the Court must “ensure that the EPA has examined the relevant data and has articulated an adequate explanation of its action.” 559 F.3d 512, 519 (D.C. Cir. 2009) (citing *City of Waukesha v. EPA*, 320 F.3d 228 (D.C. Cir. 2003)). Here, EPA deserves no deference as the data and analyses are clear: nutrients are not causing impairment in this system.

scientific information. *Id.* No deference is given to EPA when EPA simply ignores facts. *Home Box Office, Inc. v. Fed. Comm'n Comm'n*, 567 F.2d 9, 54 (D.C. Cir. 1977); Pet Reply at 25.

II. EPA's Misapplication of § 122.44(d) is also not subject to deference

CLF regurgitates EPA's claim that 40 C.F.R. § 122.44(d) allows it to find waters nutrient impaired by applying an unadopted numeric criteria via Section 122.44(d)(1)(vi) in place of the adopted narrative criteria. CLF Am. Br. at 12. The federal register notice to § 122.44(d) explained that in applying narrative criteria, "EPA emphasizes however, that scientifically valid procedures must be used to develop criteria that protect aquatic life and human health." 54 Fed. Reg. 23873, 23876 (June 2, 1989). Thus, there first must be an objective, clear scientific basis *from this estuary* to conclude nitrogen caused the loss of eelgrass (by triggering excessive algal growth) to insist that major reductions in nitrogen are needed to protect and restore eelgrass populations from that threat. A "scientifically valid" approach would necessarily demonstrate, with some degree of certainty that (1) nitrogen increased, (2) algal growth increased, (3) transparency decreased, and (4) this algal-induced transparency decrease was sufficient to cause the rapid decline in eelgrass that occurred in 2006. It deserves noting that nowhere in the CLF brief is this factual claim made; neither is it made in the "expert" report prepared by Dr. Valiella. That of course, is because the data does not support that any of these demonstrations occurred in the estuary. *See* S. Exh. 11, *supra* at 4; S. Exh 17 at 14, 16, 20. Consequently, this is not a "decision within EPA's area of special expertise, at the frontiers of science".¹⁰ Thus, again, the Board should find EPA's action to be "clear error" based on a "simple finding of fact" requiring no "deference to EPA." CLF Am. Br. at 6, n.3 (citing *Baltimore Gas & Elec.*, 462 U.S. at 103).

¹⁰ The only "special expertise" EPA has employed in this case is an ability to "hide the ball." That is regulatory brinkmanship; not scientific expertise.

Petitioners have also repeatedly specified that EPA committed procedural errors in using an unadopted criteria to declare the waters in violation of the narrative standard. At least DES admitted what it had done. DES Am. Br. at 3. CLF has provided no response – that action is patently illegal:

... EPA believes the combination of a narrative standard along with a translator mechanism as a part of a State's water quality standards can satisfy the substantive requirements of the Clean Water Act. Such translators would need to be subject to all the State's legal and administrative requirements for adoption of standards plus review and either approval or disapproval by EPA, and result in the development of derived numeric criteria for specific section 307(a) toxic pollutants.

57 Fed. Reg. 60847, 60873 (Dec. 22, 1992). Moreover, as noted by Petitioner response, Section 122.44(d) does not provide EPA the authority to jump over Section 303(c) adoption and approval process by simply invoking Subsection (vi) of that rule and creating a new numeric criteria to make impairment determinations:

Some commenters questioned how paragraph [122.44(d)(1)] (ii) relates to the other paragraphs added to § 122.44(d)(1). The requirements of paragraphs (iii), (iv), (v) or (vi) apply *after* the permitting authority has determined that water quality-based effluent limits are necessary under (ii).

54 Fed. Reg. 23873 (June 2, 1989) (emphasis added). Thus, the federal NPDES rule is also structured to ensure that the adopted narrative criteria demonstration applies to the impairment/threat determination, not some numeric substitute. Petitioners have repeatedly observed that, under § 122.44(d) it is irrational to regulate a pollutant that (1) did not cause the effect of concern (*i.e.*, change in water column transparency); (2) can't materially improve the alleged concern (*i.e.*, transparency in the tidal rivers); or (3) is based on a "conceptual model" known to not apply in this system (*i.e.*, nitrogen does not stimulate significant excess algal (phytoplankton) growth in this system). These factual points controlling the need for nitrogen

limitations in this case under the applicable state narrative standard, were verified by numerous independent sources: (1) the depositions of Philip Trowbridge (AR D.4.i.3-4); (2) the data analyses conducted under the PREP Technical Advisory Committee from 2006-2008 (Pet. Reply at 13); (3) the analyses of HydroQual (AR H.4); (4) the 2006 State of the Estuary Report (AR K.17); (5) the 2013 State of the Estuary Report (S. Exh. 17); (6) the affidavit of Steven Chapra (S. Exh. 19); and (7) the letter from Professors Jones and Langan (S. Exh. 11) that specifically detailed what research has been done and the conclusions of such research with regards to these issues. The record confirms that there is no valid scientific or factual basis for the proposed nitrogen limitations.¹¹ Consequently, there is no “agency expertise” involved – the agency simply sought to ignore the repeated scientific findings and data reports showing that nitrogen had not caused any narrative criteria violation and to keep that information out of the administrative record. The agency receives no “special expertise” deference for such actions. *Home Box Office, supra* at 17.

III. The Only Obfuscation that has occurred was perpetrated by EPA and CLF

CLF claims that Petitioners’ brief presents “a troubling disregard of ...basic requirements... to identify and present issues clearly”. CLF Am. Br. at 7. In particular, CLF expresses confusion over the factual assertions presented on page 19-20 of our brief. *Id.* at 7, n.4. The Board should note that CLF does not claim a single statement is actually incorrect, which can only mean that they know the statements are true; they are attempting to get the Board to ignore them by misdirection. CLF itself acknowledged that sufficient information was provided to locate the specific record quotes. CLF Am. Br. at 7, n.4 (“it refers the Board

¹¹ EPA plainly relied on DES and DES relied on the PREP studies. There is no other “independent” source of information or analysis. S. Exh. 20 at 1 ¶4.

generally to its August 30, 2012 supplemental comments”).¹² To avoid any further “confusion”, again, the specific deposition quotes supporting each position follow:

1. ***Phytoplankton levels in the Estuary have not materially changed over the last 30 plus years despite the apparent increase in nitrogen levels known to stimulate algal growth.***

Q. ... [F]or the data that are available, does it support the hypothesis that nitrogen is causing phytoplankton blooms which are reducing water clarity to a great degree? Do the data show that? **A.** The data—the trend analysis, which doesn’t show any kind of increased trend, does not support that hypothesis. (AR D.4.i.3 at 127 ln 15-22; *Supra* at 9, AR D.4.i.3 at 230 ln 16-19, 123 ln 19 – 124 ln 1).

2. ***Transparency levels in the Estuary have not materially changed over the last 30 plus years.***

Q. So the only available data you have shows water clarity didn’t change in the Piscataqua River and in Great Bay, right? **A.** Right. AR D.4.i.3 at 230 ln 16-19. **Q.** So if the phytoplankton levels didn’t change, phytoplankton could not have caused a change in transparency; correct? **A.** Uhm, yes. **Q.** “Yes,” meaning correct, right? **A.** Yes. (AR D.4.i.4 at 344 ln 8-13).

3. ***Great Bay is not a water column light-limited system.*** *Supra* at 11, AR D.4.i.3 at 211 ln 18 – 212 ln 3.
4. ***Data for the tidal rivers shows that transparency cannot be achieved regardless of TN reductions by wastewater treatment facilities due to natural conditions, algal growth impact on transparency in tidal rivers is negligible and TN control will not materially improve transparency in the tidal rivers.*** *Supra* at 12, AR D.4.i.4 at 423 ln 1-13; *supra* at 12, *id.* at 432 ln 20 – 433 ln 1.

5. ***Recent DIN levels in the Estuary have decreased to levels measured in the 1970s.***

DIN is the most reactive form of nitrogen. The long-term trend for all of the data collected between 1974 and 2011 shows an average increase of 68% for DIN. The DIN concentrations in the last three years fell below the average trend line to 0.116 mg/L. These levels are comparable to the DIN concentrations that were measured for some of the years in the 1970s. (S. Exh. 17 at NUT 2-2 to 2-3).

¹² EPA was contacted on several occasions asking if there are any problem locating the relevant deposition quotes. AR D.1-3. EPA never indicated any concerns over this issue until its Response to Comments was published. Apparently EPA was trying to preserve an argument rather than ensure that it fully understood the facts.

6. *Narrative criteria violations and implementation must be based on a cause-and-effect demonstration that the nutrient in question caused “cultural eutrophication” which in turn caused an impairment to the system biota.*

Q...If the situation were that transparency were poor but wasn't caused by the nitrogen component, you could say that you have an eelgrass impairment but not a nitrogen- induced eelgrass impairment... A. That's correct ...you would have to do further causation analysis to figure out what was causing the lack of eelgrass. (AR D.4.i.1. at 133 ln 22 – 134 ln 11).

7. *The 2009 Numeric Criteria were based on the “assumption” that TN caused a major change in transparency due to increased algal growth, not a “cause and effect” demonstration that such events actually occurred. Therefore the 2009 Numeric Criteria do not represent a finding about the degree of TN that causes a narrative criteria violation under existing state rules and the criteria are not based on a “cause and effect” relationship, which is needed to find a narrative criteria violation.* (Supra at 5, AR D.4.i.1 at 80 ln 14-23; supra at 5-6, AR D.4.i.4. at 332 ln22 -333 ln 8).
8. *The relevant information DES/PREP analyses that evaluated whether (a) TN increases had caused changes in transparency, algal levels or DO and (b) a “cause and effect” relationship between TN and transparency/DO existed, were excluded from the technical information presented in the 2009 Numeric Criteria document and, therefore, were never presented to EPA’s peer review panel.* Supra at 7, AR D.4.i.4 at 436 ln 8 – 438 ln 9).

These are undisputed, well-documented factual statements and therefore the Board must accept them as true in rendering its decision on this petition.¹³

IV. Petitioners are Challenging EPA and CLF’s Purposeful Disregard of the Best Available Science Confirming Nitrogen Induced Impacts Never Occurred

Cloaking themselves in the *Upper Blackstone* decision and platitudes such as “proceeding in face of scientific uncertainty”, CLF asserts none of Petitioners’ claims are valid and all deference must be given to EPA. CLF Am. Br. at 5,6. The record, however, is replete

¹³ See *Am. Registry of Radiologic Technologists v. Bennett*, 655 F. Supp. 2d 944, 946 n.2 (D. Minn. 2009) (“It is well established that a party concedes an issue by failing to address it in an opposing brief.”); *Hopkins v. Women’s Div., Bd. of Global Ministries*, 238 F.Supp.2d 174, 179 (D.D.C. 2002) (“It is well understood in this Circuit that when a plaintiff files an opposition to a motion to dismiss addressing only certain arguments raised by the defendant, a court may treat those arguments that the plaintiff failed to address as conceded”) (citing *FDIC v. Bender*, 326 U.S. App. D.C. 390, 127 F.3d 58, 67-68 (D.C. Cir. 1997); *Day v. D.C. Dep’t of Consumer & Regulatory Affairs*, 191 F.Supp.2d 154, 159 (D.D.C. 2002) (“If a party fails to counter an argument that the opposing party makes in a motion, the court may treat the argument as conceded).

with documents confirming EPA knew that nitrogen never caused excessive algal growth or “cultural eutrophication” but, like CLF, refused to let the facts get in the way of the intended result.¹⁴ Obviously, if CLF thought there was a firm factual basis confirming widespread “cultural eutrophication” due to nitrogen loadings, they would have identified those specific records. Of course, because such documents do not exist, they have not identified any records. To the degree CLF argues that EPA may regulate based on speculation of impacts and ignore the data showing such events did not occur, that is misplaced “ends justify the means” thinking not authorized by the Act:

Clearly, EPA’s mandate to establish standards ‘adequate to protect public health and the environment from any reasonably anticipated adverse effects of each pollutant’... does not give EPA blanket one way ratchet authority to tighten standards. (citations omitted) ‘Statutes do more than point in a direction, such as more safety. They achieve a particular amount of that objective at a particular cost in other interests.’

Leather Indus. of Am. v. Env’tl. Prot. Agency, 40 F. 3d 392, 401 n. 14 (D.C. Cir. 1994). As with *Leather Indus.*, where the data do not show the pollutant has actually reached a level that causes impairment, freezing the current loads (or worse yet, as in this case, demanding major reductions) is not authorized by the CWA. *Id.* at 401 (“The conclusion that current sludge composition is safe absent a showing that the alternative sludge composition would not be safe does not justify the mandate to freeze current sludge quality.”).

V. CLF’s Burack Letter Observations are Equally Misplaced (CLF Am. Br. at 13-15)

CLF likewise claims we provide a “gross mischaracterization” of the Burack letter (AR H.43) are unsupported – even DES’s amicus brief made no such claims. DES Am. Br. at 11.

¹⁴ On the heels of the Morrison study confirming that transparency was not the issue (which simply verified the results on the earlier TAC analyses), Al Basile of EPA asks DES to specifically identify Great Bay as impaired due to transparency. S. Exh. 7. The email explains the reason for the request – this will foster “nutrient” regulation.

What Petitioners noted was that the attachment to the Burack letter followed DES' consistent pattern of providing justification for its continued support for the 2009 Criteria document by:

- a. Either acknowledging or not denying the specific statement made under oath by DES officials that was the predicate for the question posed;
- b. Discussing some other, non-controlling issue that does not directly affect whether or not the 0.3 mg/l TN transparency-based criteria is still defensible (e.g., claims of excessive macroalgae growth may be occurring), and,
- c. Then simply disagreeing that the criteria should be withdrawn.¹⁵

Petitioners noted that the specific factual agreements within the attachment to the Burack letter control the Board's review, not the self-serving conclusory refusal to withdraw the criteria in the face of admitted scientific error. Br. at 32-33. CLF's comments are therefore misplaced and provide no relevant insight regarding the significance of the Burack letter.

VI. CLF Comments Regarding the 2013 State of the Estuaries Report are Dissembling

The most abusive attempt to misdirect the Board from the documented factual conclusions is associated with the CLF's rebuttal on the 2013 SOE report. CLF Am. Br. at 16-18, S. Exh. 17. Petitioners did not "distort" or "mischaracterize" the findings of the report, as confirmed by the University of New Hampshire professors (who were part of the PREP Technical Advisory Committee). S. Exh. 11. To be sure, the report contained other observations

¹⁵ CLF provides an excellent example of this on page 15 regarding "Claim #3". DES first agrees that Great Bay is not water column transparency limited and verified that "direct exposure to sunlight at low tide" is "one reason that eelgrass still exists in Great Bay proper." This verified that Claim #3 was correct. And therefore, one would not apply a water column transparency based criteria to these waters. However, DES goes to note that other areas of the system may be transparency-limited – unremarkable but irrelevant to Great Bay proper which was where DES was applying the transparency-based criteria. The quote ends with the observation that "in shallower areas, overgrowth and smothering by macroalgae and cellular disruption may be the immediate cause of eelgrass loss." Another irrelevant, if not obviously speculative observation, as (1) The 0.3 mg/l TN criteria were derived to attain a specific level of water column transparency, not a specific level of macroalgae control; (2) the record confirms there is no documented smothering of eelgrass beds (AR D.4.i.3 at 156 ln 21 – 157 ln 5); and (3) macroalgae growth is ephemeral and the degree to which it is causing any adverse environmental impacts is not known (AR D.4.i.3 at 149 ln 21 -151 ln 1, S. Exh. 17 at 44; S. Exh. 11 at 3).

and qualifications but these do not change the factual reality of the points presented in Petitioners' Brief. The fact that microalgae (phytoplankton or algal blooms) are "episodic and variable in size" (CLF Am. Br. at 16)¹⁶, does not mean that the long term average algal levels at Adams Point used to assess changes in algal growth over the past 30 years are misplaced or unreliable. Drs. Jones and Langan, who spearheaded the PREP TAC for the 2013 SOE report, observed the following with respect to the *entire estuary*: "there are no places where we are aware of documented increasing phytoplankton populations, and in many places chlorophyll 'a' remains present at very low levels." S. Exh. 11 at 2. As far as "downplaying concerns regarding macroalgae" again, the CLF missive misses its mark. CLF Am. Br. at 16-17. The PREP report notes changing macroalgae levels but no one knows their significance or permanence. AR D.4.i.3 at 149 ln 21 – 150 ln 4; 150 ln 22 – 151 ln 1; 152 ln 13-16, *supra* at 10. Again Drs. Jones and Langan observed: "There are sparse data on macroalgae biomass trends, the little available data, along with many anecdotal accounts, suggest increases have occurred, although it is well accepted that macroalgae blooms are ephemeral and unpredictable...No studies have demonstrated mechanisms for macroalgae growth causing decreases in eelgrass populations." S. Exh. 11 at 3. This is why the 2013 SOE report calls macroalgae an "emerging concern." Petitioners also verified that the area macroalgae growth highlighted by EPA, basically disappeared in 2012. Pet. Exh. 20A – 20H. Even EPA agrees that the basis for issuing this permit is not macroalgae concerns. Resp. at 82. Petitioners have not mischaracterized or misrepresented, in any way, the conclusions of the 2013 SOE report, which speak for themselves. The 2013 SOE report conclusions (independently confirmed by the letter from Drs. Jones and Langan) verify EPA's claims of widespread cultural eutrophication are baseless.

¹⁶Attempting to generate a "fear factor" seems to be a well-honed skill by CLF. However, fears are not facts as President Roosevelt so eloquently stated.

VII. CLF's Arguments Regarding Peer Review are Shameless Given CLF's Role in the Illegal Modification to the Impairment Listing¹⁷

CLF's assertions regarding the adequacy of the 2010 peer review are simply the testimony of counsel, and therefore have no weight. *Supra*, at 3-4. First, regarding claims of EPA following "accepted protocols" (CLF Am. Br. at 19), it is hardly acceptable to eliminate and/or downplay the conflicting studies and data analysis (e.g., AR --Jones 2005, 2007, 2008, Pennoch (2005), Morrison (2008)) when conducting the peer review. The fact that EPA did not inform the peer reviewers that they knew the conceptual model was inapplicable to this estuary but nonetheless designed the 2009 Nutrient Criteria around that plainly non-applicable model borders on malfeasance. That action is not consistent with any peer review protocols.

The observations of Valiella and Kenney, as noted in Petitioners' Brief, are pure guilt by association. Br. at 25 n.29. Their report contains no analysis of the relevant field data, which probably assisted CLF in getting this report from them. If such analysis had been undertaken we cannot imagine these experts issuing an opinion in direct conflict with the data or the observations of Drs. Jones and Langan, who have decades of direct, personal experience in assessing Great Bay waters. In fact, the Valiella report conclusion cited by CLF, that the proposed approach for "Great Bay estuary are supported by other studies in other New England estuaries and can serve as a sound basis for permitting decisions..." (CLF Am. Br. at 19) was directly contradicted by earlier PREP, EPA and DES evaluations. For example, the 2006 SOE report confirmed that this estuary did not respond as other New England estuaries respond:

Researchers are still debating the possible effects of the increasing DIN concentrations on Great Bay because it is a unique system, both hydrodynamically and biologically, that may respond differently to excess nitrogen than other estuaries. *So far, the typical effects of excess nitrogen have not*

¹⁷ CLF nowhere addresses that Section 101(e) of the Act mandates that EPA provide for public involvement when it is amending standards and issuing permits. Cutting the public out of the peer review and then claiming the results were unassailable (EPA Resp. at 73-76) certainly violated this provision of the Act.

been observed in Great Bay, although DIN concentrations in Great Bay are similar to concentrations in other estuaries where negative effects have been clearly observed.

AR K.17 at 12 (emphasis added). Likewise, the analysis of system data performed by Trowbridge, Morrison, Latimer, Pennock, Langan, and Short confirmed that this estuary was plainly different from the other New England estuaries. Pet. Exh. 13C. Apparently CLF's experts hadn't familiarized themselves with any of these relevant assessments. To quote Dr. Chapra:

In summary the analysis presented in the document entitled "Numeric Nutrient Criteria for the Great Bay Estuary" (2009) are (1) not based on methods generally accepted by the scientific community, (2) are contrary to the methods published in dozens of treatises on this topic (3) utilize obviously incorrect and physically impossible relationships attributed to algal growth and nitrogen influences and (4) are so thoroughly confounded and unexplained as to render them worthless for the purposes of numeric nutrient criteria development. (S. Exh. 19 at 10).

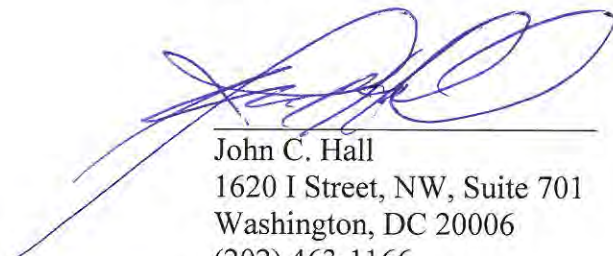
To the degree CLF is trying to set up "the battle of the experts" it is essential that the experts all render their decisions on the relevant information from the estuary. The only experts that did that were HydroQual, Chapra, Langan and Jones. Valiella and Kenny basically did a literature survey – which is not a basis for declaring that a regulatory approach is necessary for a specific water body – obviously.

For the reasons discussed herein and previously, this petition for review should be granted.

Respectfully submitted,

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CERTIFICATION OF SERVICE

I hereby certify the copies the Petitioners' Response to Amicus Briefs of New Hampshire Department of Environmental Services and Conservation Law Foundation, Town of Newington, and New Hampshire Audubon Amicus brief in connection with NPDES Appeal No. 12-5 and to Strike said Amicus Brief, were sent to the following persons in the manner indicated:

By Electronic Filing:

Clerk of the Board
U.S. Environmental Protection Agency
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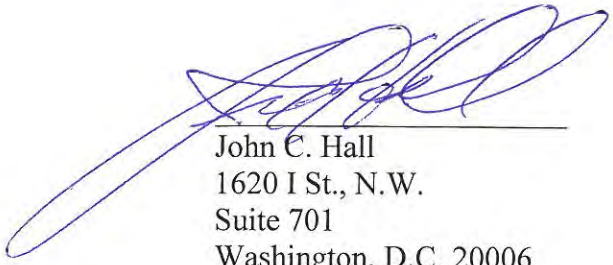
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